

1. Simplify if possible.  $\frac{x^2 - 1}{x - 1}$

2. Add and simplify, if possible  $\frac{4}{b^2} + \frac{9}{b^2}$

3. Subtract and simplify, if possible  $\frac{8}{1+b^2} - \frac{2}{1+b^2}$

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4. Multiply and simplify  $\frac{3c}{d^2} \cdot \frac{8d}{6c^3}$

5. Add:  $\frac{x^2 - 5x}{1 + y^2} + \frac{5x - x^2}{1 + y^2}$

6. Add and simplify  $\frac{1}{2} + \frac{4}{3}$

7. Add  $\frac{4}{x} + \frac{9}{x^2}$

8. Add  $\frac{4}{xy^2} + \frac{2}{x^2y}$

9. Subtract  $\frac{5}{x+5} - \frac{3}{x-5}$

10. Divide and simplify, if possible  $\frac{a^5}{b^4} \div \frac{a^2}{b}$

11. Divide  $\frac{x}{5} \div \frac{5}{x}$

12: Solve for x:  $\frac{3}{5} - \frac{5}{8} = \frac{x}{20}$

13: Solve for x:  $X + \frac{5}{X} = -6$

14: Solve for x:  $\frac{1}{x+3} + \frac{1}{x-3} = \frac{2}{x^2-9}$

15: Simplify  $\frac{x^2-1}{x+1}$

16: Add  $\frac{a^2}{a-4} + \frac{a-20}{a-4}$

17: Which ordered pair is a solution to this system of equations:

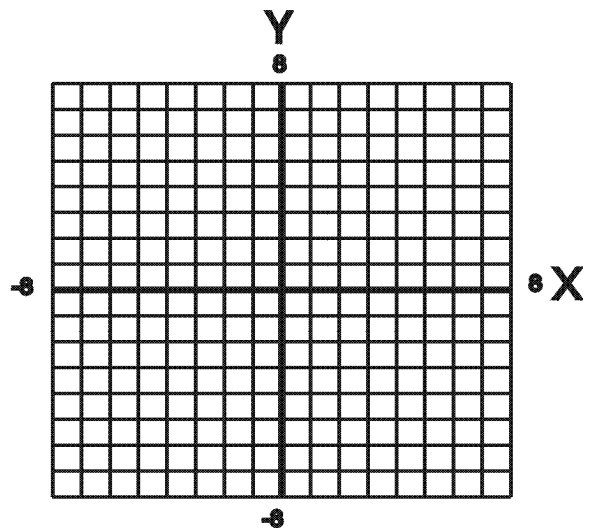
$$2x + 3y = 12 \quad x - 4y = -5$$

- (a) (3,3)
- (b) (3,2)
- (c) (-1,1)
- (d) (7,3)

18: Solve this system of equations by graphing. Write your answer as an ordered pair.

$$x + y = 7$$

$$x - y = 1$$



19: Solve this system of equations by the substitution method. Show your work. Write your answer as an ordered pair.

$$x + y = 7$$

$$y = x + 3$$

20: Solve this system of equations by the substitution method. Show your work. Write your answer as an ordered pair.

$$x = y + 1$$

$$x + 2y = 4$$

21: Solve this system of equations by the elimination method. This means add or subtract the equations to eliminate one of the variables. Show your work. Write your answer as an ordered pair.

$$x - y = 6$$

$$x + y = 12$$

22: Solve this system of equations by the elimination method. This means add or subtract the equations to eliminate one of the variables. Show your work. Write your answer as an ordered pair.

$$5x + 4y = -9$$

$$-5x + y = 8$$

23: Solve this system of equations by the elimination method. This means add or subtract the equations to eliminate one of the variables. Show your work. Write your answer as an ordered pair.

$$x + 3y = 19$$

$$x - y = -1$$

24: Solve this system of equations by the elimination method. This means add or subtract the equations to eliminate one of the variables. Show your work. Write your answer as an ordered pair.

$$2x + 3y = -1$$

$$3x + 5y = -2$$

25: In a recent game, Baron Davis of the New Orleans Hornets scored 25 points on a combination of 11 two and three point baskets. How many baskets of each type were made.? Write two equations then solve.

26: What is the slope of the line defined by the two following ordered pairs:  
(1,1) and (3,5)